

WHAT IS CLAIMED IS:

1. A multi-domain vertical alignment liquid crystal display, comprising at least:
a first substrate, having a plurality of thin-film transistors, a plurality of
protrusions and a plurality of pixel electrodes thereon, wherein the pixel electrodes
5 formed on the protrusions have a plurality of slits, and the first substrate further includes
a planarized dielectric layer on the protrusions and the slits;
a second substrate; and
a liquid crystal layer disposed between the first substrate and the second
substrate.

2. The multi-domain vertical alignment liquid crystal display according to claim
1, wherein the first and second substrates include glass substrates.

3. The multi-domain vertical alignment liquid crystal display according to claim
1, wherein the first substrate includes a thin-film transistor array substrate.

4. The multi-domain vertical alignment liquid crystal display according to claim
1, wherein the second substrate has a plurality of black matrices and color filters.

5. The multi-domain vertical alignment liquid crystal display according to claim
1, wherein extension directions of the protrusions and the slits are parallel to each other.

6. The multi-domain vertical alignment liquid crystal display according to claim 1, wherein extension directions of the protrusions and the slits are not parallel to each other.

5 7. The method according to claim 1, wherein the protrusions and the slits are alternately arranged.

10 8. The multi-domain vertical alignment array liquid crystal display according to claim 1, wherein the pixel electrodes on the protrusions are exposed while the dielectric layer is planarized.

15 9. The multi-domain vertical alignment array liquid crystal display according to claim 1, wherein the dielectric layer covers the pixel electrodes on the protrusions with a thickness thinner than that of the dielectric layer in other positions.

20 10. A thin-film transistor array substrate, comprising:
a substrate;
a plurality of thin-film transistors formed on the substrate to provide an electric field;
a plurality of pixel electrodes covering the protrusions and having a plurality of slits alternately arranged with the protrusions; and
a dielectric layer, covering the pixel electrodes and the slits, the dielectric layer having a planarized surface.

11. The multi-domain vertical alignment liquid crystal display according to claim 10, wherein the thin-film transistor array substrate includes a glass substrate.

12. The multi-domain vertical alignment liquid crystal display according to claim 10, wherein extension directions of the protrusions and the slits are parallel to each other.

13. The multi-domain vertical alignment liquid crystal display according to claim 10, wherein extension directions of the protrusions and the slits are parallel to each other.

14. The multi-domain vertical alignment liquid crystal display according to claim 10, wherein protrusions and the slits are alternately arranged with each other.

15. The multi-domain vertical alignment liquid crystal display according to claim 10, wherein the pixel electrodes on the protrusions are exposed.

16. The multi-domain vertical alignment liquid crystal display according to claim 10, wherein the dielectric layer covers the pixel electrodes on the protrusions with a thickness thinner than the dielectric layer in other positions.